

REMARKS/ARGUMENTS:

Claims 1, 11, and 19 are amended. Claims 1-24 are pending. Reexamination and reconsideration of the application, as amended, are respectfully requested.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 1-24 as being indefinite, because claims 1, 11, and 19 recited "wherein said outside and inside rotary wheels are configured for using said vessels." See the Office Action, page 2, part 3.

Applicants respectfully disagree. However, for the sole purpose of moving this application forward, Applicants have deleted the rejected limitation. The rejection is now moot and should be withdrawn.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-24 are rejected as be unpatentable over U.S. Patent No. 4,219,529 to Tersteeg et al. ("Tersteeg") in view of U.S. Patent No. 4,906,433 to Minekane ("Minekane") and U.S. Patent No. 5,075,079 to Kerr et al. ("Kerr"). See the Office Action, pages 3-4, part 3. Applicants respectfully traverse.

Claim 1 is discussed in detail below as an example. Claim 1, as amended, is directed to a rotary incubation station of an automated analyzer. The incubation station comprises:

- a. a platform;
- b. a generally circular ring-shaped outside rotary wheel having a plurality of nesting locations for washing and reading vessels;
- c. means for positioning said outside rotary wheel on said platform, allowing said outside rotary wheel to rotate;
- d. a generally circular disc-shaped inside rotary wheel having a plurality of nesting locations for incubation and storage of said vessels;
- e. means for positioning said inside rotary wheel on said platform inside

said outside rotary wheel, allowing said inside rotary wheel to rotate;

f. first spur gear means for rotating said outside rotary wheel including a plurality of spur gear teeth on the inner periphery of the outside rotary wheel, wherein the first spur gear means allows accurate control of the rotation of said outside rotary wheel;

h. second spur gear means for rotating said inside rotary wheel independent of the rotation of said outside rotary wheel, the second spur gear means comprising a plurality of spur gear teeth on the outer periphery of the inside rotary wheel and allowing accurate control of the rotation of said inside rotary wheel; and

h. two pick and place assemblies for transferring said vessels between the inside rotary wheel and outside rotary wheel.

The incubation station of claim 1 requires that an inside rotary wheel be placed inside an outside rotary wheel, and that both rotary wheels have a plurality of nesting locations for vessels. It also requires a first spur gear means and a second spur gear means for respectively rotating the outside and inside wheels. The incubation station of claim 1 further requires two pick and place assemblies for transferring vessels between the inside and outside wheels.

Tersteeg, the primary prior art reference cited by the Examiner, does not render claim 1 obvious, because it fails to teach the two required wheels, spur gears, or pick and place assemblies. More specifically, in Tersteeg, a rotor 64 serves as a circular slide conveyor for moving slides in a rotary path about axis 66 within the incubation chamber 62. See, e.g., column 4, lines 40-42 of Tersteeg. There is no second rotary wheel positioned either inside or outside the conveyor for carrying slides. In addition, as admitted by the Examiner, Tersteeg does not disclose any spur gears or pick and place assemblies. See the Office Action, page 3, lines 15-16 and page 4, lines 4-5.

Minekane, one of the secondary prior art references cited by the Examiner, discloses an automatic chemical analyzer having three concentric circular

turntables. The outmost turntable holds reaction tubes, and the two inner turntables hold reagent vessels. See, e.g., the Abstract of Minekane. The Examiner stated that “[i]t would have been obvious to one of ordinary skill in the art to use a two wheel system such as disclosed in Minekane in the analyzer of Tersteeg to decrease the time needed for the reagent vessels to move throughout the system and be filled with reagent.” See the Office Action, page 4, lines 1-3. Applicants respectfully disagree.

In Tersteeg, prior to entering the incubator, a slide already contains necessary reagents and a drop of a biological fluid sample. See, e.g., column 3, lines 37-59 of Tersteeg. There is no need whatsoever to include a second wheel carrying reagent vessels inside the incubator. Thus, one skilled in the art would not have been motivated to replace the slide conveyor taught by Tersteeg with the triple turntables taught by Minekane.

Further, like Tersteeg, Minekane fails to teach the two spur gears as recited in claim 1. More specifically, claim 1 requires that the first spur gear means include a plurality of spur gear teeth on the inner periphery of the outside rotary wheel. It also requires that the second spur gear means comprise a plurality of spur gear teeth on the outer periphery of the inside rotary wheel. In contrast, Minekane discloses teeth 128 on the outer periphery of cylinder member 126 projecting from the outmost turntable 122. See, e.g., column 4, lines 25-28 of Minekane. No spur gear is disclosed or suggested for the two inner turntables. Instead, these two turntables are simply rotated by motors connected through pulleys and belts. See, e.g., column 4, lines 61-66 and column 5, lines 11-15 of Minekane. As such, Minekane teaches away from the spur gear configuration required by claim 1.

Moreover, Minekane does not teach any pick and place assemblies as recited in claim 1. Nor did the Examiner suggest so.

Kerr, the other secondary prior art references cited by the Examiner, discloses a slide analysis system including a slide holding module spaced from an incubator module. The system also includes a slide transfer device or pick and

place mechanism for withdrawing slides from the slide holding module and inserting them into the incubator module. See, e.g., the Abstract of Kerr.

The Examiner stated at page 4, lines 8-11 of the Office Action:

It would have been obvious to one of ordinary skill in the art to modify the Tersteeg et al reference by including at least two pick and place assemblies to provide a means for moving test slides throughout the incubator system. Multiple pick and place mechanisms would increase the throughput of the system.

Applicants respectfully disagree. The incubation station of claim 1 has two wheels – one outside wheel having a plurality of nesting locations for washing and reading vessels, and one inside wheel having a plurality of nesting locations for incubation and storage of the vessels. The two pick and place assemblies are used for transferring the vessels between the inside and outside wheels. As mentioned above, in Tersteeg, there is only one slide conveyor in the incubation chamber for moving slides in a rotary path. Absent a second rotary wheel carrying slides either inside or outside the conveyor, no pick and place assemblies recited in claim 1 is needed for transferring the slides. Therefore, one skilled in the art would not have been motivated to include the pick and place mechanism taught by Kerr in the incubator taught by Tersteeg.

In addition, the slide analysis system of Kerr requires that the slide holding module be spaced from the incubator module. As such, Kerr teaches away from the two-wheel incubation station of claim 1. Also, Kerr does not disclose or suggest any spur gear means as recited in claim 1. The Examiner did not rely on Kerr to provide the two-wheel or spur gear feature of claim 1.

In light of the foregoing, Applicants respectfully submit that Tersteeg, Minekane, and Kerr, alone or in combination, fail to teach or suggest every limitation of claim 1. Thus, claim 1 is patentably distinguishable from the cited prior art references. Likewise, claims 2-24 are also patentable over the cited art.

Application Serial No. 09/811,028
Customer No. 26021
Reply to Final Office Action dated January 11, 2006

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1991-174 (81841.0154)

CONCLUSION

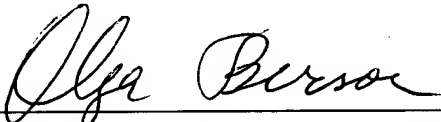
In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310) 789-5100 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

Dated: April 11, 2006

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